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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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Applicant's or agent's file reference A2421PC	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/FI 03/00147	International filing date (day/month/year) 28.02.2003	Priority date (day/month/year) 30.04.2002
International Patent Classification (IPC) or both national classification and IPC H04L29/06		
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (PUBL)		

- This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

 These annexes consist of a total of 10 sheets.

- This report contains indications relating to the following items:
 - ☒ Basis of the opinion
 - ☐ Priority
 - ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - ☐ Lack of unity of invention
 - ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - ☐ Certain documents cited
 - ☐ Certain defects in the international application
 - ☐ Certain observations on the international application

Date of submission of the demand 13.11.2003	Date of completion of this report 05.08.2004
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523856 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Günther, S Telephone No. +49 89 2399-6962 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/FI 03/00147

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1, 2, 8-11 as originally filed
3A, 4A, 5A, 6A, 7A received on 16.07.2004 with letter of 16.07.2004

Claims, Numbers

1-24 received on 16.07.2004 with letter of 16.07.2004

Drawings, Sheets

1/2-2/2 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-24
	No: Claims	
Inventive step (IS)	Yes: Claims	1-24
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

2. Citations and explanations

see separate sheet

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EXAMINATION REPORT - SEPARATE SHEET**

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Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

1. Reference is made to the following document:

D1: WO 01/31903 A

2. It is considered that the present invention meets the criteria of Article 33(1) PCT with regard to novelty, inventive step and industrial applicability.

3. The subject-matter of claim 1 is new and is considered to be inventive, Article 33(2) and (3) PCT, since the prior art cited in the International Search Report does neither disclose or suggest the claimed method of establishing anonymous communication in an IP based network.

3.1. D1 discloses requesting, providing, announcing a temporary anonymous subscriber identity, initiating and establishing one anonymous communication path towards the temporary anonymous identity, initiating and establishing another anonymous communication path towards the subscriber identity and suppressing the subscriber identity.

3.2. The subject-matter of claim 1 in the present application differs from the disclosure in D1 in requesting, reserving, providing, announcing a temporary SIP address; initiating and establishing a communication path towards the temporary SIP address using the subscriber identity associated with the temporary SIP address.

3.3. The problem to be solved by the present invention is to introduce unified anonymous communication in an IP based network.

3.4. The solution is not obvious from the above mentioned prior art. D1 does not support real-time communication in IP networks. Instead, D1 points out that the end quality of voice over IP networks is not satisfactory, and introduces a call broker, which calls and hides the real subscriber identities.

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The remaining documents cited in the International Search Report disclose further different technical solutions to establish an anonymous communication. Either the real SIP addresses are suppressed in the network to achieve a certain degree of anonymity, or temporary call IDs are used to manage anonymous voice calls.

4. The features of independent apparatus claim 13 entirely correspond to the method steps of claim 1. Therefore, the subject-matter of claim 13 is also new and inventive, Article 33(2) and (3) PCT.
 5. Claims 2-12, 14-24 are dependent on method claim 1 and apparatus claim 13, and as such also meet the requirements of PCT, Article 33(2) and (3) PCT.
 6. Remarks
- 6.1. Although claims 1, 13 are drafted in the two-part form, the features known from the prior art (see 3.1.) are not placed in the preamble, Rule 6.3(b) PCT.

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anonymous temporary subscriber identity and for a dual anonymous communication system. This need exists both in present circuit-switched wireline and wireless networks as well as in IP based networks.

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The European patent application EP 984 608 shows, as referred to as a prior art, one solution relating to a call broker for providing telephone communications using online communication. The disclosed solution presents a solution, where in an on-line text chat environment one can establish a telephone link to one of the chat participants with the help of a call broker equipment.

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The IETF SIP WG Internet draft "SIP Extensions for Caller Identity and Privacy" by Marshall et al. shows, as referred to as a prior art, extensions to SIP that enable parties in a SIP session to be identified by different types of party information, which are authenticated by a trusted entity. The specification draft shows solutions, where delivery of party information can be suppressed.

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The prior art solutions do not present a solution for a communications network based method for providing a communications network subscriber with an anonymous temporary subscriber identity or a solution for a dual anonymous communication system.

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Summary of the present invention

It is an object of the present invention to overcome or at least mitigate the disadvantages of the prior art. The present invention realizes a communications network based method for providing a communications network subscriber with an anonymous temporary subscriber identity and a dual anonymous communication system.

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- According to a first aspect of the present invention there is presented a method for providing a subscriber with an anonymous subscriber identity, for use in an IP communications network having an originating party A and a terminating party B connected to the network, in which the method comprises the steps of
- the terminating party B requesting a temporary SIP address (SIP, Session Initiation Protocol) to be used as an anonymous subscriber identity,
 - the IP communications network reserving a temporary SIP address to which the regular subscriber identity of the terminating party B is associated,
 - an application server providing the temporary SIP address to the terminating party B,
 - the terminating party B announcing the received temporary SIP address in an open forum,
 - the originating party A initiating an anonymous communication path towards the temporary SIP address of the terminating party B,
 - the originating party A suppressing the subscriber identity in the communication path set up, and
 - the IP communications network establishing an anonymous communication path between the originating party A and the terminating party B for anonymous communication between two parties using any type of bearer available for communication between two parties in an IP based network, and using the subscriber identity of the terminating party B associated with the temporary SIP address.
- Preferably, in the method according to present invention, the terminating party B requests the temporary SIP address via Internet. Alternatively, the terminating party B requests the temporary SIP address via an SMS-interface (SMS, Short Message Service). Alternatively, the terminating party B requests the temporary SIP address via a WAP-interface (WAP, Wireless Application Protocol). Alternatively,

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tively, the terminating party B requests the temporary SIP address by dialing a number in the IP communications network. Alternatively, the terminating party B requests the temporary SIP address via an email-interface. Preferably,
5 the terminating party B requests several temporary SIP addresses.

Preferably, in the method according to present invention, the terminating party B announces the received temporary
10 SIP address in Television. Alternatively, the terminating party B announces the received temporary SIP address in a restricted open forum. More preferably, the restricted open forum is the service providing the temporary SIP address.

15 Preferably, in the method according to present invention, the terminating party B terminates the temporary SIP address. Preferably, the the use of an temporary SIP address is disabled for a time period.

20 According to a second aspect of the present invention there is presented an arrangement for providing a subscriber with an anonymous subscriber identity, for use in an IP communications network having an originating party A
25 and a terminating party B connected to the network, in which arrangement

- the terminating party B having means for requesting a temporary SIP address (SIP, Session Initiation Protocol) to be used as an anonymous subscriber identity,
- 30 - the IP communications network having means for reserving a temporary SIP address to which the regular subscriber identity of the terminating party B is associated,
- an application server having means for providing the temporary SIP address to the terminating party B,

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- the terminating party B having means for associating his regular subscriber identity with the temporary SIP address,
- the terminating party B having means for announcing
5 the received temporary SIP address in an open forum,
- a originating party A having means for initiating an anonymous communication path towards the temporary SIP address of the terminating party B,
- a originating party A having means for suppressing
10 the subscriber identity in the communication path set up, and
- the IP communications network having means for establishing an anonymous communication path between the originating party A and the terminating party B for anonymous
15 communication between two parties using any type of bearer available for communication between two parties in an IP based network, and using the subscriber identity of the terminating party B associated with the temporary SIP address.

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Preferably, in the arrangement according to present invention, the terminating party B has means for requesting the temporary SIP address via Internet. Alternatively, the terminating party B has means for requesting the temporary
25 SIP address via an SMS-interface (SMS, Short Message Service). Alternatively, the terminating party B has means for requesting the temporary SIP address via a WAP-interface (WAP, Wireless Application Protocol). Alternatively, the terminating party B has means for requesting
30 the temporary SIP address by dialing a number in the IP communications network. Alternatively, the terminating party B has means for requesting the temporary SIP address via an email-interface. Preferably, the terminating party B has means for requesting several temporary SIP ad-
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Preferably, in the arrangement according to present invention, the terminating party B has means for announcing the received temporary SIP address in Television. Alternatively, the terminating party B has means for announcing the received temporary SIP address in a restricted open forum. More preferably, the restricted open forum is the service providing the temporary SIP address.

Preferably, in the arrangement according to present invention, the terminating party B has means to terminate the temporary SIP address. Preferably, the use of an temporary SIP address is disabled for a time period.

Brief description of the drawings

For a better understanding of the present invention and in order to show how the same may be carried into effect reference will now be made to the accompanying drawings, in which:

Figure 1 illustrates a dual anonymous communication system according to the present invention implemented in an IP based network.

Figure 2 illustrates a method for providing a communications network subscriber with an anonymous temporary subscriber identity according to the present invention.

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Claims

1. A method for providing a subscriber with an anonymous subscriber identity, for use in an IP communications network having an originating party A and a terminating party B connected to the network, the method being characterized in that the method comprises the steps of
- the terminating party B requesting a temporary SIP address to be used as an anonymous subscriber identity (7),
 - the IP communications network reserving a temporary SIP address to which the regular subscriber identity of the terminating party B is associated (8),
 - an application server providing the temporary SIP address to the terminating party B (9),
 - the terminating party B announcing the received temporary SIP address in an open forum (10),
 - the originating party A initiating an anonymous communication path towards the temporary SIP address of the terminating party B,
 - the originating party A suppressing the subscriber identity in the communication path set up, and
 - the IP communications network establishing an anonymous communication path between the originating party A and the terminating party B for anonymous communication between two parties using any type of bearer available for communication between two parties in an IP based network, and using the subscriber identity of the terminating party B associated with the temporary SIP address (12).
2. A method according to claim 1, characterized in that the terminating party B requests the temporary SIP address via Internet.

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3. A method according to claim 1, characterized in that the terminating party B requests the temporary SIP address via an SMS-interface.

5 4. A method according to claim 1, characterized in that the terminating party B requests the temporary SIP address via a WAP-interface.

10 5. A method according to claim 1, characterized in that the terminating party B requests the temporary SIP address by dialing a number in the IP communications network.

15 6. A method according to claim 1, characterized in that the terminating party B requests the temporary SIP address via an email-interface.

20 7. A method according to any of the claims 1-6, characterized in that the terminating party B requests several temporary SIP addresses.

8. A method according to any of the claims 1-7, characterized in that the terminating party B announces the received temporary SIP address in Television.

25 9. A method according to any of the claims 1-7, characterized in that the terminating party B announces the received temporary SIP address in a restricted open forum.

30 10. A method according to the claim 9, characterized in that the restricted open forum is the service providing the temporary SIP address.

35 11. A method according to any of the claims 1-10, characterized in that the terminating party B terminates the temporary SIP address.

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12. A method according to any of the claims 1-11, characterized in that the use of an temporary SIP address is disabled for a time period.

- 5 13. An arrangement for providing a subscriber with an anonymous subscriber identity, for use in an IP communications network having an originating party A and a terminating party B connected to the network, the arrangement being characterized in that
- 10 - the terminating party B having means for requesting a temporary SIP address to be used as an anonymous subscriber identity,
- the IP communications network having means for reserving a temporary SIP address to which the regular subscriber identity of the terminating party B is associated,
- 15 - an application server having means for providing the temporary SIP address to the terminating party B,
- the terminating party B having means for associating his regular subscriber identity with the temporary SIP address,
- 20 - the terminating party B having means for announcing the received temporary SIP address in an open forum,
- a originating party A having means for initiating an anonymous communication path towards the temporary SIP address of the terminating party B,
- 25 - a originating party A having means for suppressing the subscriber identity in the communication path set up, and
- the IP communications network having means for establishing an anonymous communication path between the originating party A and the terminating party B for anonymous communication between two parties using any type of bearer available for communication between two parties in an IP based network, and using the subscriber identity of the
- 30 terminating party B associated with the temporary SIP address.
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14. An arrangement according to claim 13, characterized in that the terminating party B has means for requesting the temporary SIP address via Internet.

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15. An arrangement according to claim 13, characterized in that the terminating party B has means for requesting the temporary SIP address via an SMS-interface.

10 16. An arrangement according to claim 13, characterized in that the terminating party B has means for requesting the temporary SIP address via a WAP-interface.

15 17. An arrangement according to claim 13, characterized in that the terminating party B has means for requesting the temporary SIP address by dialing a number in the IP communications network.

20 18. An arrangement according to claim 13, characterized in that the terminating party B has means for requesting the temporary SIP address via an email-interface.

25 19. An arrangement according to any of the claims 13-18, characterized in that the terminating party B has means for requesting several temporary SIP addresses.

30 20. An arrangement according to any of the claims 13-19, characterized in that the terminating party B has means for announcing the received temporary SIP address in Television.

35 21. An arrangement according to any of the claims 13-19, characterized in that the terminating party B has means for announcing the received temporary SIP address in a restricted open forum.

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22. An arrangement according to the claim 21, characterized in that the restricted open forum is the service providing the temporary SIP address.

5 23. An arrangement according to any of the claims 13-22, characterized in that the terminating party B has means to terminate the temporary SIP address.

10 24. An arrangement according to any of the claims 13-23, characterized in that the use of an temporary SIP address is disabled for a time period.